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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,846	11/24/2003	Kazuo Taguchi	9319S-000578	3610

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EXAMINER

IVEY, ELIZABETH D

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,846

Applicant(s)

TAGUCHI, KAZUO

Examiner

Elizabeth Ivey

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 24 November 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Examiner acknowledges applicant's election of claims 1-7 and 11-17.

Claims 8-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected method, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 30, 2006.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-3, in claim 1 the applicant claims "a well pattern of one of a first conductive type and a second conductive type". This is improper Markush language. Proper Markush language would include the terms "one of a group consisting of". Additionally, a first conductive type and a second conductive type in no way distinguish one from another. Therefore it is not clear what the applicant is claiming. For purposes of furthering examination, the examiner will interpret the types to refer to n-type and p-type well patterns as indicated below in the 102 rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-6, 7, 11-17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,071,803 to Rutten et al.

Regarding claims 1-3 and 4-7, Rutten discloses a silicon-on-insulator (SOI) semiconductor substrate structure having a support substrate with a p or n-type well region, viz. pattern, an insulating layer on the substrate and a silicon layer, viz. single crystal silicon, grown on the insulator (column 5 lines 52-58, and 65-66 and column 6 lines 23-26, 33-46). Rutten further discloses contact trenches delineated between the active device on the top of the semiconductor substrate and the active device on the SOI bulk substrate, viz. between the top of the substrate and the well to provide electrical interconnection between the devices above and below or within the structure (column 7 lines 15-17). Additionally, Rutten discloses a contact area, viz. pad, to a back gate or wiring level (column 9 lines 18-21 and figures 4, 9 and 10).

Regarding claims 11, and 14 Rutten discloses a silicon-on-insulator (SOI) structure having a p-type or n-type support substrate with a p or n-type well region, viz. pattern, an insulating layer on the substrate and a silicon layer grown on the insulator (column 5 lines 52-58, 65-66 and column 6 lines 23-26, 33-46). Rutten further discloses contact trenches delineated between the active device on the top of the semiconductor substrate and the active device on the SOI bulk substrate, viz. between the top of the substrate and the well and discloses the trench filled with a metallic-type high conductivity electrical material to provide electrical interconnection between the devices above and below or within the structure (column 7 lines 15-17, 36-41 and 56-58). Rutten also discloses an isolation trench formed in the top silicon layer and p and n-type doping areas and a gate, which can be integrated circuit elements, in and on the silicon layer (column 7 lines 59-61, column 8 lines 18-26 and figures 1-4).

Regarding claims 12-13 and 15-16, Rutten discloses all of the limitations of claims 11 and 14 and because the disclosed substrate exemplifies the claimed invention the disclosed well pattern could be used to control the electric potential relating to an integrated circuit element and can be used as a wiring layer and a component in a passive layer.

Regarding claim 17, Rutten discloses all of the limitations of claim 14 and discloses a well pattern connected with a conductive layer (p-type) pattern on the substrate (column 8 lines 18-26 and figures 2 and 4).

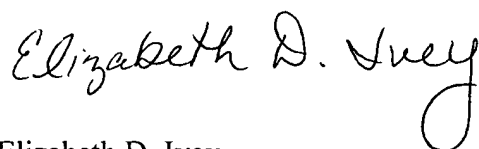
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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Ivey whose telephone number is (571) 272-8432. The examiner can normally be reached on 7:00- 4:30 M-Th and 7:00-3:30 alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth D. Ivey



JENNIFER MCNEIL
PRIMARY EXAMINER
2/16/06